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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,304	02/10/2004	Jim Orr	16-568	1507
22971 7590 03/01/2007 MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052-6399			EXAMINER KARIMI, PEGEMAN	
			ART UNIT	PAPER NUMBER
			2609	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		03/01/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary

Application No.

10/775,304

Applicant(s)

ORR, JIM

Examiner

Pegeman Karimi

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04/16/2004 & 12/22/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 8, 9, 16, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Risheq (Pub. No. U.S. 2005/0105951 A1)

As to claim 1, Risheq (Fig. 5) discloses a wireless user input device (200) for communicating a user input to a computer (594), (paragraph 24), comprising:

a user input detecting element (520) that detects a user input (paragraph 25, lines 1-3);

a kinetic energy converting device (510) that converts kinetic energy (mechanical stroke, supplied to the user input device (200) by the user to electrical energy (paragraph 24, lines 13-14);

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a transmitter (540) in communication with the user input detecting element (520) that uses said electrical energy (550) to communicate a user input detected (520) by the user input detecting element (520) to the computer (594), (paragraph 25, lines 5-8).

As to claim 8, Risheq teaches a wireless input device (100) wherein the user input detecting element (510) comprises a plurality of keys (110) of a wireless keyboard (100).

As to claim 9, Risheq teaches a wireless input device (200) wherein pressing of a keyboard key causes the transmitter (540) to communicate a signal to the computer (594) that corresponds to the key (paragraph 25) and wherein kinetic energy (mechanical stroke) supplied by pressing the key (input stroke) is converted to electrical energy by the kinetic energy converting device (510), (paragraph 24).

As to claim 16, Risheq teaches a method of communicating a user input from a wireless input device (200) to a computer (594), comprising:

a) converting kinetic energy of the user input device (200) to electrical energy (paragraph 24);

b) providing said electrical energy (550) to a transmitter (540), (paragraph 27);
and

c) communicating a user input (200) provided to the user input device (200) to the computer (594), (paragraph 24).

As to claim 26, Rishq (Fig. 5) discloses a wireless keyboard (200) for communicating a user input (200) to a computer (594), comprising:

- a) a plurality of keys (Fig. 1A, 110) for entering a user input (paragraph 24, lines 10-12);
- b) a kinetic energy converting device (510) that converts kinetic energy supplied to one or more of the keys by the user to electrical energy (paragraph 24);
- c) a transmitter (540) provided with signals that are indicative of movement of the keys that uses said electrical energy (550) to communicate said signals to the computer (594), (paragraph 25).

3. Claims 19-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Henty (U.S. Patent number 5,838,138).

As to claim 19, Henty (Fig. 1a) discloses a kinetic energy utilizing computer system (10), (col. 3, lines 48-51), comprising:

- a) a display (24);
- b) a memory (30) in which machine instructions are stored (col. 7, lines 29-30);
- c) a system battery (32);
- d) a processor (26) that is coupled to the display to the memory (Fig. 1b) and to the system battery, the processor executing the machine instructions to carry out a plurality of functions (software, col. 5, lines 63-65);

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e) a user input device (16) in communication (configured, col. 3, lines 1-2) with the processor (10 and 26), the user input device (16), includes:

i) a user input detecting element (Fig. 8b, 156) that detects a user input (col. 7, lines 5-9);

ii) a kinetic energy converting device (Fig. 1b, 38) that converts kinetic energy supplied to the user input device (10) by the user to electrical energy that is used to charge the system battery (32), (col. 3, lines 51-53).

As to claim 20, Henty teaches a computer system (10) wherein the kinetic energy converting device (36) is a piezoelectric device (col. 8, lines 8-12).

As to claim 21, Henty teaches a computer system wherein the kinetic energy converting device (36) is a generator (col. 8, lines 18-21).

As to claim 22, Henty teaches a computer system wherein the user input device (16) is a notebook keyboard (col. 2, lines 34-35).

As to claim 23, Henty teaches a computer system wherein kinetic energy supplied by pressing the key (18 and 20) is converted to electrical energy by the kinetic energy converting device (36), (col. 3, lines 48-53).

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As to claim 24, Henty teaches a computer system (10) wherein the kinetic energy converting device (Fig. 1b, 36) is a piezoelectric device (col. 8, lines 8-12) and pressing of a keyboard key (20) applies kinetic energy to the piezoelectric device (col. 3, lines 48-50).

As to claim 25, Henty teaches a computer system (10) wherein the user input device (18) is a computer mouse (col. 3, lines 5-8).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7, 10, 11, 17, 18, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rishq (Pub. No. U.S. 2005/0105951), and in view of Morrison (U.S. Patent 6,933,655).

As to claim 2, note the discussion of Rishq above, Rishq does not teach the limitation "battery".

Morrison (Fig. 3) teaches a wireless input device (102) comprising a battery (208) electrically connected to the kinetic energy converting device (202) and the transmitter (206), (col. 4, line 31-33) wherein the battery powers the transmitter (col. 4,

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lines 33-35) and is charged by the kinetic energy converting device (col. 4, lines 31-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have been provided the kinetic energy converting device of Morrison to the wireless user input device as taught by Rishet because a wireless input that generates its own electrical power to remove any need for a direct connection to a battery or other external source of electrical power, this freedom to locate a switch anywhere without being confined by a wire harness reduces the complexity of the power distribution system (col. 2, lines 14-17 and lines 47-50).

As to claim 3, Morrison (Fig. 6) teaches a wireless input device (102) comprising a charging circuit electrically connected to the kinetic energy converting device (504) and the battery (510) (col. 3, lines 20-22) that rectifies (508) and regulates voltage from the kinetic energy converting device (504) to charge the battery (510), (col. 7, lines 7-9 and lines 23-26).

As to claims 4 and 28, Morrison teaches a wireless input device (102) wherein the kinetic energy converting device (202) is a piezoelectric device (col. 4, lines 26-31).

As to claims 5 and 29, Morrison teaches a wireless input device wherein the kinetic energy converting device is a piezoelectric transformer (506), (col. 6, lines 57-59).

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As to claims 6 and 30, Morrison teaches a wireless input device wherein the kinetic energy converting device is a piezoelectric actuator (512).

As to claims 7 and 31, Morrison teaches a wireless input device wherein the kinetic energy converting device is a generator (col. 4, lines 26-31).

As to claims 10 and 32, Morrison teaches a wireless input device wherein the kinetic energy-converting device is a piezoelectric device and pressing of a keyboard key (204) applies kinetic energy to the piezoelectric device (col. 4, lines 24-28).

As to claims 11 and 33, Morrison (Fig. 3) teaches a wireless input device wherein pressing of the keyboard key flexes (210) the piezoelectric (202) to transfer kinetic energy of the keyboard key to the piezoelectric device (col. 4, lines 26-28).

As to claim 17, Morrison teaches a method comprising storing (208) said electrical energy and using stored electrical energy (col. 4, lines 33-35) to communicate the user input (204) to the computer (780), (col. 8, lines 54-57).

As to claim 18, Morrison teaches a method wherein the kinetic energy is converted to electrical energy with a piezoelectric device (202), (col. 4, lines 26-31).

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As to claim 27, Morrison teaches a wireless keyboard of claim 26 further comprising a battery (208) electrically connected to the kinetic energy converting device and the transmitter, wherein the battery powers the transmitter and is charged by the kinetic energy converting device (col. 4, lines 31-35)

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Risheq (Pub. No. U.S. 2005/0105951), and in view of Nacson (Pub. No. 2002/0118173).

As to claim 14, note the discussion of Risheq above. Risheq does not teach motion sensor element.

Nacson (Fig. 2) teaches a wireless input device (10) wherein the user input detecting element is a motion sensing element (22, 26, and 28) of a computer mouse (10) and the kinetic energy converting device (32) comprises a generator (136), and wherein movement of the motion sensing element transfers kinetic energy to the generator (paragraph 34, lines 7-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have been provided the self-powered cordless mouse of Nacson to the wireless user input device as taught by Risheq because using the motion sensing elements of Nacson for generating power cordless mouse is of a simple design, it can to be incorporated into computer-pointing devices inexpensively and is less prone to mechanical failure (paragraph 21, lines 8-12).

As to claim 15, Nacson teaches a wireless input device (10) wherein the motion-sensing element is a mouse ball (22).

7. Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Risheq (Pub. No. U.S. 2005/0105951), in view of Henty (U.S. Patent 5,838,138).

As to claims 13 and 35, note the discussion of Risheq above. Risheq does not teach a piezoelectric device.

Henty (Fig. 8b) teaches a wireless input device (140) wherein the user input detecting element (156) comprises keys (144, 142, 146) of a wireless keyboard (140) and the kinetic energy converting device (150) is a piezoelectric device (col. 8, lines 8-12), and wherein movement of one keyboard key (146) applies kinetic energy to a plurality of piezoelectric devices (128, 130), (col. 8, lines 8-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have been provided the electronic device powered by actuation of manual inputs of Henty to the wireless user input device as taught by Risheq because it provides increase in battery lifetime without significantly increasing the size, weight cost or manufacturing complexity of the portable computer (col. 1, lines 59-62).

8. Claims 12 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Risheq (Pub. No. U.S. 2005/0105951) in view of Henty (U.S. Patent 5,838,138), as applied to claim 1 and further in view of Vance (U.S. Patent 6,498,600) .

As to claims 12 and 34, note the discussion of Risheq above. Risheq does not teach a piezo electric device.

Henty (Fig. 8a) teaches a user input-detecting element (156) comprising keys (144, 146, 142) of a wireless keyboard (140) and the kinetic energy converting device (150) being a piezoelectric device (col. 8, lines 8-12). Henty does not teach multiple keys connected to a single piezoelectric device. Vance teaches movement of multiple keyboard keys (col. 2, line 56) applies kinetic energy to a single piezoelectric device (col. 1, lines 56-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have been provided the electronic device sensor of Vance to the wireless user input device of Risheq as modified by Henty that the processor determines that the user is in contact with at least two of the keys, which is obvious that at least two of the keys are sharing the same sensor (col. 2, lines 33-34).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahmed (U.S. Patent 6,491,457) discloses an apparatus and method for deriving electric power efficiently from a keyboard.

Inquiries

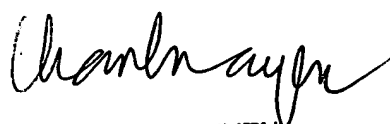
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegeman Karimi whose telephone number is (571) 270-1712. The examiner can normally be reached on Monday-Friday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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02/12/2007


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